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ABSTRACT

Equipped for the Future (EFF) is a standards-based system reform initiative aimed at improving the quality and outcomes of the adult literacy and lifelong learning delivery systems. It is predicated on the concept that the skills adult learners need for success as parents, workers, and citizens go beyond the basic academic skills traditionally targeted by adult education programs. Performance-based assessment is an approach to assessment that is congruent with EFF's emphasis on real-world performance. This paper introduces instructors who are using the EFF Standards to specific performance-based assessment methods that show promise for measuring progress. Following an introduction that explains EFF and the use of performance-based assessment, the report contains five additional sections. Section 2 describes the key characteristics of effective performance-based assessment methods. Section 3 provides specific examples of performance-based assessment methods. Section 4 describes how to evaluate or score student performance on performance-based assessment tasks and how to explain results to adult learners and others. Section 5 describes how to develop performance-based assessment tasks and prepare students for them. Finally, Section 6 discusses the role of performance-based assessment for purposes of instruction and accountability. (KC)

Equipped for the Future Assessment Report

*How Instructors Can Support Adult Learners
Through Performance-Based Assessment*

By Sri Ananda
WestEd

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Preface

EARLIER THIS YEAR THE NATIONAL INSTITUTE for Literacy (NIFL) published *Equipped for the Future Content Standards: What Adults Need to Know and be Able to Do in the 21st Century*. Based on six years of field-based research efforts, the *Equipped for the Future Content Standards* provide a new definition of adult literacy and lifelong learning, one that accurately reflects the full range of skills and knowledge that enable adults to carry out their responsibilities as parents and family members, citizens and community members, and workers.

Work on an assessment framework for these standards is underway and will be completed in 2002. In the meantime, however, programs using the EFF Framework and Standards to guide curriculum and instruction have asked for assistance in developing assessment tools that will enable them to measure progress on these new standards. This paper is a first step in providing such guidance.

Written by Dr. Sri Ananda, an assessment specialist who has been providing technical assistance to the EFF development team, this paper describes an important development in the educational arena—the use of performance-based assessments as part of a comprehensive system aimed at measuring student performance relative to challenging content and performance standards. The paper provides an orientation to the key characteristics of

effective performance-based assessments, so that instructors already using EFF Standards can understand how performance-based assessment tools can be used to measure progress relative to these standards. Work has already begun on a handbook that will assist instructors in applying the guidelines presented here to the development of EFF assessment tasks geared to the standards and dimensions of performance. Based on ongoing work in EFF field development sites, the handbook should be available by January, 2001.

The author of this paper, Sri Ananda, is an educational researcher and assessment specialist with a broad range of experience on assessment-related issues and practices. Dr. Ananda is co-director of the Assessment and Standards Development Services program at WestEd, the educational research and development organization that has been designated by the U.S. Department of Education as the “Assessment Specialty Regional Laboratory.” In this capacity, Dr. Ananda directs several high-profile standards and assessment projects at the national, state, and local levels.

This paper is based on years of work on performance-based assessment by the author and her colleagues at WestEd. The author also wishes to acknowledge the helpful comments on earlier drafts provided by Sondra Stein, Peggy McGuire, and Joan Wills.



Introduction

EQUIPPED FOR THE FUTURE (EFF) IS A standards-based system reform initiative aimed at improving the quality and outcomes of the adult literacy and lifelong learning delivery system. It is predicated on the concept that the skills adult learners need for success as parents, workers, and citizens go beyond the basic academic skills traditionally targeted by adult education programs. Over a six-year period, EFF developed consensus among adult learners and educators across the nation that in order to be effective, adult education programs must help adult learners apply the basic academic skills to real life situations, build problem solving and thinking skills, and develop strong interpersonal skills. The EFF Standards embody these important aspects of adult literacy. The Standards provide a vehicle for instructors and programs to align teaching and assessment with preparing adults to carry out everyday activities that are important to adult roles as parents, citizens, and workers.

At present, adult education systems are locked into a more traditional approach to teaching and assessment. Forced to rely for both assessment and accountability on tests of adult learning that focus on decontextualized skills and rely heavily on multiple-choice test items, instructors of adult education find it difficult to fully integrate important higher-order cognitive and interpersonal skills into instruction and assessment—even though they know these skills are critical to the success of their students in the real world.

Performance-based assessment is an approach to assessment that is congruent with EFF's emphasis on real world performance. Performance-based assessments require the examinee to construct or produce a response to an assessment item or task.¹ This is different from multiple-choice testing in which the examinee must select the correct response on an assessment item. Performance-based assessment includes cognitively demanding, hands-on activities. It aims to stimulate learners to think, react to new situations, review, revise and evaluate their work, and communicate in verbal and visual ways. Examples of performance-based assessment methods include problem-solving scenarios, journals, projects, performances, computer simulation tasks, and portfolios.

Throughout the 1990s, performance-based assessment has been gaining ground in K-12 education and in occupational testing and certification. Increasingly, it is seen as an important component of a comprehensive assessment system aimed at measuring performance relative to challenging content and performance standards. Performance-based assessments are attractive to policymakers, educators, and certification agencies because they help provide a more comprehensive and valid picture of student achievement related to real world outcomes than that produced solely by multiple-choice and short written-response tests.

Comprehensive approaches to assessment are intended to address *internal* as well as *external* assessment and accountability purposes, and, as a

¹ Other terms commonly used to refer to the class of assessments that requires the examinee to construct or produce a response include *alternative assessment* and *authentic assessment*.

Performance-based assessment includes cognitively demanding, hands-on activities.

It aims to stimulate learners to think, react to new situations, review, revise and evaluate their work, and communicate in verbal and visual ways.

result, include a range of assessment instruments, including both multiple-choice tests and performance-based assessments. Nationally standardized tests, such as the Adult Basic Learning Examination (ABLE), the Comprehensive Adult Student Assessment System (CASAS), the Tests of Adult Basic Education (TABE), and the GED high school equivalency examinations are examples of external measures of adult student learning. External assessments are measures that are "imposed" from the outside for accountability purposes. They are used to determine the extent to which adult programs are achieving certain goals or mandates. They are also used to determine whether or not students have met some external criterion for performance (e.g., learned enough to qualify for a high school equivalency diploma). In contrast, internal assessments typically are measures that are developed and used within programs or classrooms to gauge learning and provide important diagnostic information to students.

Clearly, both external and internal assessments contribute to a complete picture of student achievement. There must be improvements in both types of assessments in order to realize the goal of a

comprehensive, fully integrated assessment system for adult learning. Therefore, it is important for instructors of adult learners to be familiar with the range of assessments that might comprise a comprehensive assessment system for adult learners.

This paper introduces instructors who are using the EFF Standards to specific performance-based assessment methods that show promise for measuring progress relative to the EFF Standards.

- Section II describes the key characteristics of effective performance-based assessments for the classroom.
- Section III provides specific examples of performance-based assessment methods.
- Section IV describes how to evaluate or score student performance on performance-based assessment tasks and how to explain results to adult learners and others.
- Section V describes how to develop performance-based assessment tasks and prepare students for them.
- Section VI discusses the role of performance-based assessment for purposes of instruction and accountability.



Key Characteristics of Performance-Based Assessments for the Classroom

AS DESCRIBED ABOVE, THE EMERGING CONSENSUS is that a comprehensive student assessment system must include multiple assessment techniques, including performance-based assessments, in order to assess the broadest possible range of skills and to allow students to show their skills in different ways. Performance-based assessments are particularly useful in adult education classrooms because they embody the kind of learning or work that has value and meaning beyond the classroom. There is substantial agreement about characteristics that underlie effective use of performance-based assessments in the classroom. These key characteristics are described below.

Demonstrate Technical Quality

Like traditional standardized tests, performance-based assessments must meet accepted levels of technical quality. Among other attributes, technical quality of assessments includes *validity* (the degree to which an assessment measures what it is purported to measure) and *reliability* (the consistency and stability of assessment scores). Although most educators understand that assessments used for high-stakes purposes, such as program evaluation or award of a high school diploma, must demonstrate technical quality, some do not realize that equivalent technical quality is essential in all contexts, including classroom assessment. Stiggins (1997) describes five aspects of general and technical quality that apply to

performance-based assessments for classroom use:

- **Clear targets.** Instructors who select or develop performance-based assessments must have a clear sense of what they are assessing. Using EFF Standards as the basis for assessment helps to clarify the targets. The EFF Content Standards and dimensions of performance also serve to ground the assessment tasks so that there is more consistency in the skills being assessed and in the criteria for gauging how well learners are performing.
- **Focused purpose.** Performance-based assessment is not an end unto itself. Instructors must be able to articulate why an assessment is being conducted and how the results will be used. For example, the purpose of a portfolio assessment might be to assess an adult learner's work readiness skills (e.g., effective use of teamwork, communication, and technology), yielding meaningful results for presentation to potential employers.
- **Proper method.** A sound performance-based assessment matches the method with the intended target. If the purpose of an assessment is to determine how effectively an adult learner can plan, then having the student actually develop and document a plan for some specified purpose (e.g., planning a community event) is appropriate.
- **Sound sampling.** Given time and other limitations, performance-based assessments use only a sample of tasks from the infinite number of tasks that are possible to assess a student's learning. Good assessment yields a representative sample of

*Performance-based assessment is grounded
in theories of learning that emphasize making meaning
through thinking and doing.*

student performance—that is, enough of the right kind of information to draw solid conclusions about student achievement.

- **Accurate assessment, free of bias and distortion.** To ensure accuracy and freedom from bias and distortion, performance-based assessments must be carefully designed and reviewed prior to use. Because human judgment is often relied on in evaluating performance on alternative assessment tasks, evaluator bias or prejudice must be avoided.

Linked Directly to Standards

The EFF Standards establish challenging expectations for learning. They set goals to guide curriculum and instruction and also provide a common set of criteria that can be used to evaluate student learning. Performance-based assessment tools should be carefully designed to measure student progress towards achieving EFF Standards. Specifically, assessments must require students to demonstrate the particular knowledge, skills, and modes of thinking described by the Standards so that accurate inferences can be drawn about student achievement relative to these Standards. For example, if an assessment is supposed to measure the Standard *Speak so that Others Can Understand*, a multiple-choice test will not suffice because it does not directly involve the targeted skill, speaking. The assessment task that targets this Standard should require the student to demonstrate effective speaking skills (e.g., engage in a dialogue; give an extemporaneous answer to a question; make a formal oral presentation) and evaluate his or her ability to speak in a way that others can understand according to the criteria specified in the Standard's components of performance.

In addition to linking to Standards, performance-based assessments should also link directly to instruction—that is, to what students are actually taught and have the opportunity to learn. Assess-

ments should mirror instructional strategies that are regularly used with students. For example, the experience of many large-scale student assessment programs is that students who have not had the opportunity to write essays and internalize principles of good writing in class tend to perform poorly on the essay components of statewide assessments. Therefore, if students are expected to demonstrate effective writing skills, then they should have sufficient opportunities in the classroom to develop and use these skills *before* being assessed on them.

Grounded in Theories of Learning

Performance-based assessment is grounded in theories of learning that emphasize making meaning through thinking and doing. For example, *constructivism* holds that knowledge is actively constructed and that individuals create meaning by taking an active role in their own learning. That is, they learn by writing, discussing, creating products, and making decisions about learning. They do not learn as well by passive participation, simply listening to the instructor and restating what the instructor says (Newmann, et. al., 1995).

The concept of contextual teaching and learning also underlies the application of performance-based assessment. Simply stated, students learn and perform best in context. For example, students better understand and internalize statistical concepts by actually conducting and analyzing a survey rather than simply responding to statistical problems presented in a textbook, devoid of any meaningful context. Performance-based assessment tasks, like contextual learning tasks, use real-life applications to reinforce academic knowledge and skills.

Performance-based assessment also acknowledges the important role of social interaction in learning. Many theories of intellectual development recognize that interaction facilitates intellectual

As a contextual teaching and learning tool, performance-based assessment is intrinsically motivating because it emphasizes the relevance of the learning content to the individual.

development (Katz & Chard, 1989). Assessment methods, such as portfolio and project-based assessments, encourage students to discuss their work with their peers and instructors and get feedback as they develop and refine their products.

Finally, recent research on motivation also supports the use of performance-based assessment. One research finding is that instructors encourage motivation determinants, such as self-confidence and self-efficacy (i.e., empowerment from being actively involved in one's own learning), by providing adult learners with meaningful feedback on their work and helping them to regulate their own learning. Moreover, as a contextual teaching and learning tool, performance-based assessment is intrinsically motivating because it emphasizes the relevance of the learning content to the individual (McMillan, 1997).

Serve as Instructional and Assessment Tools

Performance-based assessment purposefully blurs the lines between teaching, learning, and assessing. At times, an assessment can serve simply as a gauge of student progress. At other times, it can also serve as a powerful instructional tool, providing meaningful learning experiences in itself (Stiggins, 1997). Assessment tasks should be engaging, thought provoking, and motivating. To increase student motivation, when possible, assessments should provide adult learners with an opportunity to integrate their own interests and particular modes of learning into their assessment response.

In order for assessments to serve as a tool for both teaching and gauging progress, adult learners must be active partners in the assessment process. For example, assessment tasks should be tailored to allow for a range of responses or performances that might demonstrate mastery of one or more Standards.

Moreover, students should participate in the analysis and evaluation of their work in order to internalize the critical elements of problem solving and better understand how to improve their performance.

Be Cognitively Demanding, Requiring Application and Integration of Knowledge

As the EFF Standards attest, the solution to many problems in daily adult life requires the integrated application of content knowledge, complex thinking, reasoning, problem solving, and reflection skills. Performance-based assessments that model such real-world demands call for more than simple recall of facts, concepts, or procedures. They require students to actually apply their knowledge and skills in ways that correspond to the use of knowledge and skills in real life. For example, tasks may ask students to analyze or explain cause-and-effect relationships, develop defensible hypotheses or valid conclusions, justify ideas or procedures, investigate and resolve realistic problems, produce complex products or events, or evaluate the work of self or others (O'Neill & Stansbury et al., 1999).

Some forms of performance-based assessment are inherently more cognitively complex and integrated than others. For example, assessments that are conducted over time, such as projects and portfolios, are almost always more cognitively demanding than assessments that require students to do or write something "on the spot" (e.g., on-demand assessments). Nevertheless, even on-demand assessments, such as a short, in-class essay, can require cognitively complex thinking and integration.

Require Shift in Roles of Instructor and Student

Integrating some of the more challenging performance-based assessment methods, such as projects

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show their knowledge and skills.*

and portfolios, into classroom practice requires both instructors and students to redefine their traditional roles and how they interact with one another. Instructors must give up some control, allowing students to take on substantial responsibility for their learning and to work more independently. They must also create an instructional environment that promotes student responsibility. As students begin to make more choices and decisions about their learning, instructors must learn to work effectively as coaches, balancing when to demand and when to support. Although students take on more responsibility for learning, the role of the instructor remains very active. Instructors must regularly monitor students' work for information that can help shape future learning goals and any necessary changes to instruction. This is a significant shift in roles for both instructors and students, requiring time for both to become comfortable and effective in the new environment.

Another challenge to performance-based assessment is the support needed by instructors who are interested in implementing such assessments in classroom practice. Performance-based assessment is not business as usual. To successfully incorporate such assessments into instruction and classroom activities, instructors need help and resources, including professional development opportunities. They need to be trained or mentored by colleagues who have done this before. Instructors also need additional classroom planning time to design assessment activities, as well as to help manage and store student work. For example, as students work on projects and portfolios, they collect and generate various materials and products over time. The instructor needs to consider early on how to plan for performance-based assessment tasks to help ensure that students have sufficient access to necessary resources and have

space for organizing and storing materials and work in progress.

Reflect and Accommodate Diversity

Differences in students' culture, language, learning styles, and preferred modes of expression can and often do influence students' participation in the classroom and their performances on assessments (O'Neill & Stansbury, et. al., 1999). For example, many students have difficulty performing well on assessments that conflict with their cultural norms or require them to process information quickly in a language other than their first. Similarly, students who do not excel in verbal forms of expression are usually disadvantaged by assessments that require only verbal responses. Performance-based assessments should accommodate differences among students, giving all students sufficient opportunities to effectively show their knowledge and skills.

While classroom assessments must have some elements of standardization in order to be fair to all students (e.g., the same basic requirements for completing the task), they should also provide a range of task types and opportunities for choice and support to accommodate student differences. Specifically, performance-based assessments should provide students, whenever possible, with different avenues to demonstrate learning (e.g., writing, creating "hands-on" projects, illustrating information or relationships through diagrams, graphs).

Also, instructions for performance-based assessment tasks should be written using simple, concise sentences in order to ensure that students understand what the assessment requires of them. Students who are still learning English and students with learning disabilities should be accommodated by any reasonable means, such as extending the time limits for administration or by reading instructions aloud.



Examples of Performance-Based Assessment Methods

A GREAT VARIETY AND RANGE OF ASSESSMENT methods and tasks fall under the umbrella of performance-based assessment: projects, portfolios, performance tasks, computer simulations, scientific or mathematical inquiries, research reports, etc. To allow for more in-depth discussion, we consider three major types of performance-based assessment methods in this section: written scenarios, projects, and portfolios.

These three assessment methods were selected as examples for several reasons. First, they have each been used extensively and successfully in different educational programs across the nation. Second, because they differ in the scope of the task and the skills that they target, these assessment methods offer a glimpse of the range of possibilities associated with performance-based assessment. Finally, these assessment methods were selected due to their potential for reinforcing and measuring learning relative to the EFF standards.

Written Scenarios

The written scenario is a type of on-demand writing task. On-demand writing tasks require students to respond in writing to an assessment prompt and complete the task within a relatively short amount of time (typically 15 minutes to one hour). This assessment format is suited to measuring students' depth more than breadth of knowledge, and their ability to organize knowledge in relatively complex ways. A written scenario is an on-demand writing task that requires the student to apply previous knowledge and pose written solutions to realistic

problems. Students must not only recall knowledge, but must also be able to use the information to carry out a range of complex cognitive behaviors, such as organizing, summarizing, classifying, comparing, relating, analyzing, synthesizing, evaluating, generalizing, inferring, predicting, concluding, applying, solving, and/or creating.

Written-scenario tasks vary in length and scope. Depending on the prompt, some responses may take two to three paragraphs, while others may take one or two pages. Figure 1 shows two examples of written-scenario tasks that are targeted to specific EFF standards and can be administered as on-demand classroom assessments. Note that each written-scenario task has a *title*, a *prompt*, and *instructions*. The *title* (e.g., *The Talkative Reader*, *Ben's Job Dilemma*) identifies the task with a word or short descriptive phrase related to the prompt. The scenario *prompt* provides background information on the item, succinctly describing a problem or situation to be considered. This information sets the stage for writing and is written to capture students' interest in the topic. The *instructions* tell students what to do. They clearly outline the specific "question(s)" to be answered and aspects of content to be considered when responding. Written scenarios should also include *evaluation criteria*, clearly articulating what students must demonstrate to receive a good score or grade. In summary, the format of a writing task is very important in helping to ensure that students know what they are being asked to write about, which skills they need to demonstrate, and how their response will be evaluated.

The first scenario example in Figure 1, *The*

The format of a written scenario is very important in helping to ensure that students know what they are being asked to write about, which skills they need to demonstrate, and how their response will be evaluated.

Talkative Reader, involves the role of family or parent. It calls for a parent to solve a problem with his or her child's teacher. The second scenario, *Ben's Job Dilemma*, deals with the role of worker. It calls for the student to use his or her knowledge of career development to evaluate someone else's strategy for finding work. Notice that both scenario tasks require the learner to explain his or her thinking or actions. Also, note that the evaluation criteria listed are directly connected to EFF Standards, applications, or underlying knowledge linked to those standards.

A major advantage of written scenarios is that they are easy to develop and administer compared to other performance-based assessment methods. As previously mentioned, written scenarios can be administered in a single class period. Compare this

to projects and portfolios, both of which entail long-term support to students over the course of several weeks or months.

Another desirable feature of scenarios is their flexibility. For example, the scenarios presented in Figure 1 could also be presented orally and require oral rather than written responses by students. Some instructors prefer to introduce the idea of scenarios to their students as oral problem-solving tasks. They encourage students to discuss the scenarios and solve the problems orally as a group. This variant on the written scenario is perfectly acceptable, depending on the needs and abilities of the group of learners being taught. Instead of assessing the EFF Standard *Convey Ideas in Writing*, oral scenarios target the EFF Standard *Speak So Others Can Understand*.

Figure 1. EXAMPLES OF WRITTEN SCENARIOS REFERENCED TO THE EFF STANDARDS

Example 1: The Talkative Reader

Scenario: You are the parent of a first-grader named Ivy. Ivy does good work and reads very well for her age. You learn that there is a special program for strong first-grade readers at Ivy's school. Ivy was not invited to join this program. You ask Ivy's teacher, Ms. Lynn, why Ivy was not placed in the program. She tells you that Ivy talks too much in class and should not be "rewarded" for her misbehavior.

Instructions: What would you say to Ivy's teacher to persuade her that Ivy should be allowed to join the school's program for strong readers? Describe what you would say in response to Ms. Lynn's concern about Ivy's talking in class. Besides speaking with Ivy's teacher, describe one other step you would take to ensure that the school supports Ivy's interest in reading and explain why you think this step would be effective.

Your response will be evaluated on your ability to:

- Advocate and influence
- Solve problems and make decisions
- Convey ideas in writing

Example 2: Ben's Job Dilemma

Scenario: Ben's goal is to find work as a sales associate for a department store. He has never worked in a department store before but he feels that he has good interpersonal skills. Ben's strategy for finding a job is to look at the job ads in the paper every week and send his resume in response to the ads. It has been two months and Ben has not yet found a job or even been asked for a job interview. Because Ben is your friend, he comes to you for your advice on seeking work as a sales associate.

Instructions: What feedback would you give to Ben on his strategy for finding a job as a sales associate? Specifically, describe two strategies you think that Ben should consider to be more effective in seeking work as a sales associate. Explain how you would present these strategies to Ben.

Your response will be evaluated on your ability to:

- Plan (evaluate a plan's effectiveness in achieving goals)
- Solve problems and make decisions (generate strategies of options for effective action)
- Convey ideas in writing
- Guide others

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of a topic, theme, idea, or activity, resulting in a product,
performance, or event for assessment.*

Other ideas for written or oral scenarios include:

- Provide a graph of neighborhood crime statistics, or some other neighborhood statistics. Ask student to analyze and interpret the graph and to explain what he or she could do as a concerned citizen to galvanize the neighborhood about the problem. (*Target EFF Standards: Use Mathematics to Communicate and Solve Problems; Advocate and Influence*)
- Ask student to briefly describe a recent life decision and have him or her reflect on the process used to reach that decision and the decision itself. (*Target EFF Standard: Reflect and Evaluate*)
- Present a consumer problem. Ask student to analyze the problem, identify a potential solution, and explain how he or she would negotiate that solution. (*Target EFF Standards: Solve Problems and Make Decisions; Advocate and Influence*)

Project Assessments

A project is an in-depth, hands-on exploration of a topic, theme, idea, or activity, resulting in a product, performance, or event for assessment (Katz &

Chard, 1989). It takes place over a substantial period of time (e.g., weeks, months) and is valued because it represents the best of what a student can do given constructive feedback and opportunities to revise his or her work. Projects focus on depth of knowledge and result in substantial work products.

Although project assessment is considered an innovative assessment method, most instructors have used a form of project assessment at one time or another. Indeed, project assessments are an extension of project-based teaching and learning (Long & Crepeau, in progress). Project assessments can measure students' standards-based knowledge and skills as applied in authentic situations. They can also assess how well students are able to evaluate their own work, solve problems, plan and carry out complex activities, and communicate findings to an audience.

Perhaps the most important feature of project assessments is that they involve hands-on applications. Consider the examples of project ideas presented in Figure 2. In each case, students must explore a complex and realistic question, problem or activity over time. During the process, they must do

Figure 2. EXAMPLES OF PROJECT IDEAS FOR ADULT LEARNERS

Survey Results: Student conducts a class or neighborhood survey on attitudes towards current events, such as a new freeway construction measure on an upcoming city election. Student analyzes results (e.g., calculates descriptive statistics for different subgroups of respondents, such as men and women) and then orally presents the results (using supporting graphics) and discusses the implications of the results with the class. (*Target EFF Standards: Use Mathematics to Solve Problems and Communicate; Speak So Others Can Understand*)

Researching Child Care

Programs: Student conducts a comparative study of local child care programs in order to select the one that is within his or her budget and best fits the personality and age of his or her child. The study includes interviews with staff at the different child care programs, observations of staff interacting with children, and examination of program materials. The study culminates in a paper summarizing the results of the study, including the program ultimately selected and the reasons why. (*Target EFF Standards: Listen Actively, Observe Critically, Convey Ideas in Writing*)

Seniors' Home Health Care:

A student interested in a career as a home health aide researches current health care options and services for senior citizens. The student then creates a brochure for senior citizens, providing current information about health care options, costs, insurance coverage, and services for home health care. (*Target EFF Standards: Learn through Research; Convey Ideas in Writing*)

A key feature of project assessments is that they encourage students to integrate knowledge and skills, often across several subject areas.

more than "learn about" a topic. They must actually use their knowledge and skills to create products, performances, or events that are related to that topic.

Another key feature of project assessments is that they encourage students to integrate knowledge and skills, often across several subject areas. Rarely in life do individuals engage in activities that call for only one type of skill or for skills relating to only one discipline. Project assessments reflect this reality. When working on challenging projects, students will invariably need to use content knowledge from a variety of subject areas, as well as thinking, planning, and problem-solving skills.

One example of a project assessment is having students actively plan and carry out a community event (e.g., ethnic art and music festival) or endeavor (e.g., a food drive to feed the poor). Besides requiring planning, researching, and thinking skills, these types of "real-life" projects require application of specific content knowledge, such as mathematics

(for budgeting) and civics (local government ordinances). Other examples of possible projects for adult learners are presented in Figure 2.

Project assessments usually consist of four basic parts, each of which can result in assessable student work. These four parts are: (1) planning and organizing the project; (2) researching and developing the project; (3) producing a final product, performance, or event; and (4) presenting the final project. The Career-Technical Assessment Program (C-TAP), an ongoing alternative assessment system for secondary students and community college students in career-technical programs, has formalized these four basic parts for their project assessment component. These parts are summarized in greater detail in Figure 3. Figure 3 also shows how the C-TAP structure for projects relates to selected EFF Standards. For example, Step 1: Planning and organizing the project addresses the EFF Standards *Convey Ideas in Writing and Plan*.

Figure 3. C-TAP PROJECT STRUCTURE AND ITS RELATIONSHIP TO SPECIFIC EFF STANDARDS

Step 1: Planning and Organizing the Project

(EFF Standards: *Convey Ideas in Writing; Plan*)

Project Plan: student prepares a document describing the focus and goals of a project, steps for how the project will be completed, resources and materials, and a timeline for completion.

Step 2: Researching and Developing the Project

(EFF Standard: *Learn Through Research*)

Evidence of Progress: student collects and produces materials that may be considered evidence of progress, such as journal entries, research notes, interview questions, letters, sketches, photographs, and rough drafts.

Step 3: Producing a Final Product

(Note: Particular EFF standard depends on nature of product)

Final Product: student produces and submits a final product for assessment; it may be a physical product, or documentation of a performance or event that is the result of project work.

Step 4: Presenting the Final Product

(EFF Standard: *Speak So Others Can Understand*)

Oral Presentation: student makes a presentation describing the project, the knowledge and skills used to complete it, and what was learned during the process.

***Many instructors who have formalized project assessment
and incorporated it into the curriculum attest to its positive impact on student learning
and its ability to motivate and sustain student interest.***

As with any other performance-based assessment task, a project assessment needs structure in order to help the student organize and demonstrate his or her learning and to allow for teacher intervention or support along the way, as necessary. This is particularly important for tasks that are complex and time and resource intensive. Having students begin a project by producing a project plan helps them stay organized and focused. The project plan can serve as a road map, helping guide students' work throughout the assessment process.

Requiring students to produce evidence of progress during the research and development phase of the project can also serve many important purposes. It helps demonstrate to both the teacher and student that the student is progressing at a satisfactory rate. It also gives the teacher an avenue for providing feedback to students regarding their work, including positive support and making suggestions for improvement, if needed. If the outcome of the student's project is not as anticipated, the collected evidence of progress also may provide clues to help both the teacher and learner identify what might have been done differently for better results. The requirement of an oral presentation in addition to the final product provides students with an opportunity to receive public acknowledgement for their hard work as well as to reflect upon their project work and experiences. It also helps develop and reinforce students' oral communication skills, skills that teachers find lacking in many of their students.

Using a predetermined structure, projects can be conducted by individual students or by groups of students working in collaboration. There are advantages and disadvantages to both types of projects. From an assessor's perspective, individual projects are easier to score because an individual student is responsible for his or her own project work. In con-

trast, assigning a grade to an individual student for his or her work on a group project is not as straightforward. Should everyone who worked on a group project receive the same score? How do you ensure that each student has a meaningful role in the group project? One approach used to address these questions/issues is to carve out specific roles for team members from the onset of a group project. This helps ensure that all team members participate meaningfully in the process and provides a basis for scoring an individual's performance.

Although complications like these must be addressed with group projects, many potential problems can be effectively side-stepped through preplanning. Furthermore, there are benefits to group projects that make them worthy of consideration. Specifically, group projects:

- mirror real-world activities, which often call for collaboration;
- allow students to undertake significant efforts that are beyond the scope of any one individual (e.g., specific community projects); and
- reinforce important interpersonal skills as reflected in EFF Standards (e.g., cooperate with others, advocate and influence, resolve conflict and negotiate, guide others).

In summary, project assessments can elicit rich information about a student's knowledge and skills. However, projects require a significant time commitment from both instructors and adult learners. This commitment may present a real challenge for adult education programs that are either short in duration or have an irregular class schedule. Nevertheless, many instructors who have formalized project assessment and incorporated it into the curriculum attest to its positive impact on student learning and its ability to motivate and sustain student interest.

In contrast to projects that typically require students to produce one product related to a few standards or themes, portfolios generally require a variety of student work related to multiple standards or themes.

Portfolio Assessments

A portfolio assessment involves the structured collection of student work that documents students' application of knowledge and skill in a variety of authentic contexts. In contrast to projects that typically require students to produce one product related to a few standards or themes, portfolios generally require a variety of student work related to multiple standards or themes (e.g., reports, work samples, awards and certificates, career development documentation, self-reflection and evaluation pieces). As such, portfolio assessments can usually provide a more comprehensive view than projects of students' standards-based knowledge and skills.

There are many examples of portfolios in place

today across the various levels of the education system. At the elementary and secondary education levels, portfolios have been found to be beneficial across subject areas and purposes, ranging from the statewide writing portfolio used by the Commonwealth of Kentucky as part of its statewide testing and accountability system through several successful classroom-focused applications. Portfolios are also being used for purposes of professional certification. For example, the National Board for Professional Teaching Standards requires a teacher to successfully complete a portfolio in order to be certified as an accomplished teacher. While no state has endorsed portfolios as part of their adult education accountability system, a number of adult education pro-

Figure 4. DESCRIPTION OF CPA PORTFOLIO ENTRIES

Personal Statement

Students outline their career goals and evaluate their skills in relation to the Career Preparation Standards.

Resume

Students prepare a one-page resume describing their experiences and skills.

Application

Students complete an application for employment or further education.

Letter of Recommendation

Students obtain a letter of recommendation from someone who knows them well, such as a supervisor, community leader, or teacher.

Work Samples (2)

Work samples are pieces of student work demonstrating students' mastery of the Career Preparation Standards. One work sample must address Technology Literacy. Examples include desktop publishing, graphics, CAD, spread sheets, databases, and use of advanced equipment.

Writing Sample

The writing sample demonstrates students' ability to reach a conclusion based on their writing ability and analytical reasoning. Writing samples can range from a comparative analysis of short stories to a business proposal.

Interpersonal Skills Evaluation (ISE)

An evaluation of students' interpersonal skills (team work, leadership, etc.), the ISE is completed by a supervisor or teacher after a work experience, a team project, or a class. Students are strongly encouraged to obtain an ISE from someone outside the classroom (e.g., an employer, community project coordinator, or coach).

Optional Components

Students may create an additional section in their portfolio and include any of the following: 1) attendance records; 2) transcript with GPA; 3) extra-curricular activities, certificates, and awards; or 4) cover letter (designed to accompany applications). Students will not be evaluated on these optional components.

Portfolios, because of their depth and necessary time commitment, are excellent tools to support integrated learning across a range of academic and interpersonal skills.

grams are beginning to develop and incorporate portfolios into classroom practice, including programs that are using the EFF standards.

Instructors who have been successful in implementing portfolio-based instruction and assessment in their classrooms report that the methodology motivates students to produce a body of standards-based, theme-oriented work samples, rather than disjointed products that are forgotten once the class moves on to the next chapter of the textbook. As suggested above, portfolios, because of their depth and necessary time commitment, are excellent tools to support integrated learning across a range of academic and interpersonal skills. The Career Preparation Assessment, or CPA, is one example of such a portfolio (WestEd, 1995). High school students work with a number of instructors across subject areas to demonstrate mastery of both the Career Preparation Standards—a series of important generic workplace readiness skills including: *Personal Skills, Interpersonal Skills, Thinking and Problem Solving, Communication, Employment Literacy, and Technology Literacy*—and academic standards. The CPA portfolio includes multiple entries designed to triangulate student performance—that is, provide students with a variety of ways to demonstrate the

full range of expected performance. Among the required CPA portfolio entries are: a personal statement of goals; a resume; a completed application for employment or continued education; a letter of recommendation; two work samples; a writing sample, and; an evaluation of interpersonal skills. A description of each CPA portfolio entry is provided in Figure 4. Although the CPA portfolio model was developed specifically for high school students, the entries clearly have relevance for and could be tailored specifically to the needs of adult learners.

The complexity of portfolios—and the other performance-based assessment approaches described in this paper—demands careful attention to scoring. The most common and recommended approach is the development of a scoring rubric designed to assist teachers in identifying work that meets the performance levels of the various standards measured by the portfolio. Successful rubrics are consistent with the expectations of the standards, guide the teacher towards reliable application of these expectations, and provide students with sufficient information to understand how their work was judged. The CPA Rating Guide (e.g., scoring rubric) is presented in Figure 5 (see next page). Scoring rubrics will be described in more detail in Section V.

Figure 5. CAREER PREPARATION ASSESSMENT (CPA) RATING GUIDE

	Career Preparation	Analysis	Technology	Communication
	• Personal qualities needed for employment • Interpersonal skills needed for employment • Career planning and employment literacy	• Analytic thinking • Evaluation	• Presentation of work using technology • Application of technology other than word processing	• Attention to audience • Using own ideas • Organization and clarity • Accuracy and completeness • Language mechanics, sentence structure, and vocabulary
BASIC <i>(Not ready to show employer or college)</i>	• Does not identify own personal qualities needed to be successfully employed • Shows little or no ability to work productively with others • Shows little evidence of planning for a career	• Reasoning is unclear, illogical, or superficial; interprets or calculates information inaccurately; makes statements with little explanation • Gives incomplete or sketchy evaluation of own work	• Does not use technology to present work (Appearance interferes with presentation of work) • Application of technology other than word processing is ineffective or lacking	• Shows little or no awareness of the audience • Writing is not original; copies the ideas of others • Ideas are presented in a disorganized way • Work lacks accuracy and completeness • Writing contains errors in language use that make ideas difficult to understand
PROFICIENT <i>(Ready to show employer or college)</i>	• Identifies own personal qualities needed to be successfully employed • Shows ability to work productively with others • Shows evidence of planning and developing a career	• Reasoning is clear and logical; interprets or calculates information accurately; supports statements with explanation • Gives accurate evaluation of own work	• Uses technology to present work • Effectively applies technology other than word processing	• Effectively presents self and ideas to outside reviewer • Writing is original • Writing is clear and organized • Work is accurate and fully developed • Writing contains minor language errors; ideas are understandable
ADVANCED <i>(Superior quality, may exceed expectations of employer or college)</i>	• Consistently highlights own personal qualities needed to be successfully employed • Shows leadership and strong ability to work productively with others • Shows excellent understanding of career planning; describes realistic plan for achieving career	• Reasoning is clear, logical, and thorough; interprets or calculates information accurately and creatively; supports statements with evidence • Shows understanding and insight in evaluating own work	• Uses technology to enhance presentation of work • Effectively applies technology other than word processing that is relevant to chosen field	• Self and ideas "come alive" to outside reviewer • Writing is original and may be creative • Writing is clear and well organized throughout portfolio • Work is accurate and complete with consistent and superior development; shows attention to detail • Writing is almost free of language errors and is easy to understand

As previously mentioned, portfolios are beginning to be used in programs for adult learners. One example of such a program is Vermont Adult Learning's "Getting Ready to Work Class." The entries for their portfolio model are listed in Figure 6. As shown, this portfolio includes six different sections with academic as well as employment related parts. Like the CPA portfolio model, the Vermont Adult Learning portfolio model allows the student to showcase his or her best work (six pieces). Specifically, the Vermont Adult Learning portfolio requires students to provide a short explanation for each piece describing why it was chosen, what was done well, and what was learned.

The Canton Even Start portfolio, like the Vermont Adult Learning portfolio, is linked to the EFF Standards. The Vermont and Canton portfolio models are both in early stages of development (e.g.,

neither model has fully developed or formalized scoring processes or rubrics). The Canton Even Start portfolios are built around project-based learning activities that are designed to help students develop the 16 EFF Skills. Students identify specific goals in relation to these 16 Skills. Dividing their portfolio notebook into 16 sections, students keep their goal sheets in the front of their notebooks, and place evidence of skill development in the appropriate portfolio section for each EFF Standard. Each student's portfolio can then be used as the basis for creating a Career Passport that contains formal documents that identify and describe the student's marketable skills for potential employers. Because the Canton Even Start portfolio effort is new, it is reported that staff still need additional training in using student-centered learning strategies and helping students to set goals and reflect on their work

Figure 6. PORTFOLIO CHECKLIST FOR THE VERMONT ADULT LEARNING "GETTING READY TO WORK CLASS"

1. Cover Page: Name, Date, Photo

2. Table of Contents: All Items Listed in Order of Appearance

3. Vermont Adult Learning Section:

- ☐ Assessment Analysis
- ☐ Learning Styles Inventory
- ☐ Academic Goals Timeline
- ☐ Attendance Record
- ☐ Transportation & Childcare Grant
- ☐ GED Practice Test Scores; Scores Grades From Other Programs
- ☐ Budget
- ☐ 6 Best Pieces (Your Choice) With Your Notes for Each Piece
- ☐ Mid Term and Final Evaluations
- ☐ Instructor Evaluations

4. Department of Employment and Training Section:

- ☐ Vocational Exploratory Checklists and II
- ☐ Occupational Goal Sheet
- ☐ Internship Description and Evaluation
- ☐ Resume
- ☐ Mock Job Interview Evaluation
- ☐ Letters of Reference
- ☐ Sample W-4
- ☐ Copies: Birth Certificate, Social Security Card, Drivers License

5. Coordinator's Section

- ☐ List of Workshops With Certificates and Evaluations
- ☐ List of Tours Attended
- ☐ Letter from Mentor

6. Other: Any Special Accomplishments, etc.

*Because a portfolio contains various types of entries
and is developed by a student over an extended period of time, it is a valuable tool
for gauging in-depth learning relative to a wide range of standards.*

(Meyer, 1999). Nevertheless, even in its early stages of development, the articulation of program and student goals facilitated by use of the portfolio and other program components is a clearly recognized benefit.

In summary, portfolios are the most comprehensive of the performance-based assessment methods available for classroom use. Because a portfolio contains various types of entries and is developed by a student over an extended period of time, it is a valuable tool for gauging in-depth learning relative to a wide range of standards. Besides its ability to address challenging academic, problem-solving, and

self-reflection skills, portfolio assessment is popular for its ability to measure interpersonal skills through such entries as teamwork samples and formal evaluations of a learner's interpersonal skills by a work supervisor or an instructor. The complexity of portfolios, however, creates many challenges for instructors. The challenges range from logistical issues (e.g., where and how to store portfolios) to systemic issues (e.g., fundamental changes in curriculum and instructional practice to support use of portfolios). These challenges—and examples of solutions people have used to address them—will be the focus of a subsequent paper.



Scoring and Reporting Results on Student Performance

SCORING IS A MEANS FOR INTERPRETING THE relationship between the EFF Standards and student achievement. That is, the scorer must judge a student's assessment response to determine its adequacy in relation to the appropriate EFF Standard(s). Unlike a traditional multiple-choice test, performance-based assessment tasks do not have a set of correct answers built into the assessment. There may be multiple "right" answers to a performance-based assessment task. Thus, scoring performance-based assessments can be challenging and the process often receives insufficient attention.

This section describes the major steps in developing and using effective scoring procedures. It then presents different options for reporting scoring results.

Developing Effective Scoring Procedures

1. Select an appropriate scoring method. Performance-based assessments may be scored using different methods or combinations of methods. The two most common scoring methods are holistic and analytic scoring. Using the holistic method, the scorer rates the student's response to an assessment as an integrated whole rather than the sum of its individual parts. In contrast, a scorer using the analytic method views a student's response to an assessment in parts, rating different parts of the student response separately and then (usually) combining these separate ratings into an overall score. Holistic scoring is appropriate for complex performances where the overall impact is of most

interest, particularly if extreme ratings on one or more aspects can outweigh performance on other aspects. It often takes less time than analytic scoring and can accommodate situations where two very different performances can lead to the same overall rating. Analytic scoring is appropriate when the focus is on different aspects of performance as well as the overall impact of performance. The subscores can provide valuable diagnostic information about specific strengths and weaknesses of individual students.

For example, suppose an assessment task calls for students to write a persuasive essay about how they would address an issue of concern to the community (e.g., lack of quality after school child care). If the purpose of this assessment is to gauge a student's overall progress on developing and organizing a cogent argument, the instructor may choose to use holistic scoring, where the focus is on overall performance. However, if the purpose of this particular assessment task is to assess and provide feedback on specific aspects of written communication (e.g., language mechanics, content knowledge, and use of persuasive writing techniques), the instructor may choose to use analytic scoring.

2. Identify aspects and a scale for performance. Once a decision is made about whether to use the holistic or analytic scoring method, the next step is to decide on a scale for performance. A scoring scale is a system of classifying assessment performances in a progressive series of points, grades, levels, or degrees. Scoring scales can reflect graduated levels of

*The aspects listed in a scoring checklist should focus
on characteristics of performance that are present in a student response,
not those that are absent.*

achievements (e.g., Excellent, Good, Fair, Limited) or they can assign a range of test scores or points to different levels of performance (e.g., 100-91=A; 90-81=B; 80-71=C; etc.).

In addition to identifying an appropriate scale to reflect different levels of performance, different aspects or elements of performance that contribute to the overall evaluation of performance must also be identified. Figures 7 and 8 show two examples of scoring checklists that are being used by instructors of adult learners. The scoring checklist shown in Figure 7 focuses on an oral communication task,

identifying nine aspects of oral communication (e.g., identifies purpose for speaking, uses correct grammar, etc.) and three categories of performance (excellent, good, developing). Notice that the aspects of performance listed are behavioral indicators of the EFF Standard, *Speak so Others Can Understand*. As shown, the aspects listed in a scoring checklist should focus on characteristics of performance that are present in a student response, not those that are absent. Also, they should focus on elements that are being measured by the assessment, and omit reference to any element not being measured.

Figure 7. SCORING CHECKLIST FOR EVALUATION OF STUDENT'S ORAL COMMUNICATION
(Speak So Others Can Understand)

Standard	Excellent		Good		Developing	
1. Identifies purpose for speaking.						
2. Uses correct grammar.						
3. Manages communication anxiety and apprehension.						
4. Comments are clear.						
5. Pronunciation is comprehensible.						
6. Expresses views and opinions in English.						
7. Uses new vocabulary.						
8. Looks at the audience and makes eye contact.						
9. Faces the audience.						

Figure 8. SCORING CHECKLIST FOR EVALUATION OF STUDENT'S LISTENING SKILLS
(Listen Actively)

Strategies for Listening	Strong	Adequate	Needs Improvement	Developing
Focuses attention on the speaker's verbal and non-verbal messages and can state how this helped to interpret the message				
Avoids distractions in the environment				
Avoids interrupting the speaker until he or she is finished				
Takes notes when appropriate				
Asks questions for clarification				
Is able to rephrase the speaker's ideas				
Compares the speaker's message with own experiences				
Can state the main ideas and important details of the message				
Can follow verbal instructions				

The scoring checklist in Figure 8 lists nine strategies that comprise the EFF Standard, *Listen Actively*. The scale for this checklist consists of four performance levels: strong, adequate, needs improvement, and developing. Presumably, for both scoring checklists, an overall score is given to student work based on the individual ratings of the different aspects of performance.

It is important to emphasize that the performance scale used for scoring a performance-based assessment task should closely align to the targeted Standard(s) in order for the task to serve as a valid

measure of learning relative to those standards. For example, EFF instructors can use the components of each EFF Standard to guide development of a scoring performance scale. Data collection currently underway to support the EFF Performance Framework will help provide the groundwork for more comprehensive and valid performance scales. For example, the dimensions of performance specified by the Framework (types of tasks that can be performed; range of contexts of performance; knowledge base of learners; fluency and independence of performance) can be used to define and

distinguish among different levels of performance, such as Excellent, Good, and Fair. (The EFF Performance Framework is described in more detail on page 23.)

3. Identify benchmarks and provide examples to students. Labels for scoring categories are usually not sufficient to communicate meaning. To help communicate meaning, instructors should provide students with examples that demonstrate different levels of performance. These examples of student responses, often called benchmarks, illustrate and provide concrete examples of different levels of performance.

Typically, instructors identify benchmarks by sorting through a large number of student responses and selecting examples that represent solid examples of different levels of performance (e.g., Excellent, Good, Fair, and Limited) to a given task. Solid examples are those that meet the descriptive criteria for a given performance level and that different scorers agree reflect a certain performance level. Solid examples are not “borderline” or “jagged” responses that straddle the performance boundaries between, for example, Excellent and Good, or Good and Fair. These solid examples (often from a previous class of student) are then presented to and discussed with current students, so that they get a better understanding of the scoring criteria and how the criteria are applied to and reflected in actual responses. Once students understand the scoring criteria and solid benchmarks of performance, some instructors choose to share “borderline” examples to further illustrate application of scoring criteria.

4. Check for reliability of scoring process. Clearly, scoring of performance-based assessments requires interpretation and professional judgment. In order to be fair to all students, attention must be given to the reliability of the scoring method used. As previously discussed, reliability refers to the consistency of scoring, such that different scorers using the same

scoring method will assign the same score to a particular student response. For classroom assessments, it is hard to monitor the reliability of scoring since the classroom instructor typically scores assessment tasks alone. As a result, there typically is not the opportunity for two different scorers to rate a given student response. However, the scoring of performance-based assessment tasks would clearly benefit from collaboration among instructors. Instructors—especially those new to performance-based assessment—should work together to check both the appropriateness and reliability of the scoring processes that they have developed. Also, each instructor must take care to monitor his or her own scoring, making sure to uniformly apply the same criteria to score the responses of different students to the same assessment task.

5. Check for appropriate level of difficulty. When beginning to score a new assessment task, it is important to gauge the level of difficulty of the task and how well the scoring checklist or rubric accommodates the difficulty of the task: Is the task too difficult? Does the scoring checklist or guidelines (i.e., scoring rubrics) unfairly penalize students? Instructors should be aware that, when they first introduce challenging performance-based assessment tasks to their students, student scores could be fairly low. Sometimes there are no performances that warrant the highest rating on the scoring scale. The experience of many instructors is that over time both instruction and student responses to performance-based assessments improve.

The EFF Rubrics for Collecting Data on Learner Performance

As a system reform initiative, EFF is still in process. Describing and measuring performance relative to the EFF Standards is the focus of an ongoing phase of work. A performance framework for EFF Standards is now being developed to help instructors focus and collect data about learners' progress. The initial framework is presented in Figure 9. Devel-

oped from a strong research base, the framework identifies four key dimensions of performance: types of tasks that can be performed; range of contexts of performance; knowledge base of learners; and fluency and independence of performance. These dimensions of performance will be used to help frame the collection of data on adult learners.

The EFF Performance Framework is intended to provide a conceptually sound structure for systematic data collection on adult learner achievement. As previously alluded to, the data collected through this process also will be used to guide assessment development efforts, including the development of

assessment tasks, performance standards, and scoring rubrics. For example, data collected on the four key dimensions of performance will help confirm that these dimensions represent appropriate scoring criteria for performance-based tasks. Validating the performance dimensions in this way and then incorporating these dimensions into scoring rubrics will contribute significantly to the reliability of EFF-based performance assessment tasks. At a more fundamental level, this comprehensive EFF data collection effort will serve to validate the overall theoretical base for adult learning and performance on which the EFF initiative is grounded.

Figure 9. PERFORMANCE FRAMEWORK FOR EFF STANDARDS

n order to insure that adult learners can use the EFF skills to act flexibly, with a range of options and choices, to meet the goals in their lives, teachers and learners need to pay attention to the following aspects of learner performance:

What kinds of tasks can learners carry out?	In what contexts can learners perform?	What do learners know?	How well can learners perform?
1. How complex is the task? 2. How familiar is the task to the learner?	1. How familiar are learners with the context? 2. In how many different situations can learners perform? 3. How much risk is involved in the situation? How high are the stakes?	1. What vocabulary do learners have related to the skill? Related to the subject area? 2. What content knowledge do learners have related to the skill? Related to the subject area? 3. What strategies do learners have for organizing and applying content knowledge?	1. How fluently can learners perform? • How much effort is required? • How consistently do learners start and finish, getting to the desired outcome? • How well are barriers controlled or overcome? 2. How independently can learners perform? • How much help is needed from others? • How much initiative is shown in getting started? • How often do learners generate their own strategies to complete tasks?

*In a comprehensive adult learning assessment system,
the instructor's major responsibility in terms of reporting assessment results
is to the individual student.*

Reporting on Student Progress and Achievement

After scoring responses to student assessment tasks, the next step is to communicate the results to the appropriate audiences. Broadly speaking, there are two types of information provided by student assessment: *formative* and *summative*. Formative assessment results are typically diagnostic, identifying student strengths and weaknesses. The instructor uses formative information for several purposes: to identify possible gaps in students' skills and knowledge that call for redirection of instruction; to identify specific aspects of a given student's work that need improvement; and to determine how to support the student in achieving the next level of performance.

Summative assessment results provide summary information of a student's achievement at a specific and meaningful point in time (e.g., end of semester, end of program). Summative information can also serve multiple purposes: as an indicator of overall program quality; to compare student performances to established standards; and to assess a student's performance in relation to his or her personal or career goals.

Both formative and summative information about student achievement can be reported to individual students and to the larger public (e.g., local program administration or the federal government for program accountability purposes). Students can use the information to understand how well they are progressing and where they may need extra help. The larger public is likely to use summative information to help inform policy and instructional program changes. For example, if the summative assessment results for a particular community indi-

cate that adult learners are performing below expectations on readiness for work, interested parties in that community may push for more adult education programs that focus on related aspects of skill development.

In a comprehensive adult learning assessment system, the instructor's major responsibility in terms of reporting assessment results is to the individual student. Assessment results can be reported in several ways. Instructors can provide information on classroom assessment results through individual conversations with students, written comments, grades, and/or scoring checklists or rubrics. Instructors can also help individual students interpret and understand the results of assessment reports that students receive from external agencies (e.g., certification agencies).

When instructors adopt new forms of assessment, it is an opportune time to establish a meaningful system for reporting assessment results. However instructors choose to report assessment results to individual students, there are five principles of effective reporting that should be employed:

1. Clearly identify and define aspects of student achievement (standards) on which to report.
2. Inform students in advance of what standards you expect them to meet.
3. Be clear about the reasons for reporting student achievement, including how the information is to be used, by whom, and for what purpose.
4. Use words, scores, graphic displays, or other symbols that are clearly understood by the student or other important audience.
5. Provide opportunities to discuss the reports with students and others in order to explain and clarify their meaning.



Developing Performance-Based Assessment Tasks and Preparing Students for Them

THIS SECTION PROVIDES SOME GENERAL GUIDELINES for instructors about how to select or develop performance-based assessment tasks, as well as how to prepare students for these new types of assessment tasks. These "tips" were generated from years of research on performance-based assessment methods by the assessment staff at WestEd, a regional educational laboratory with headquarters in San Francisco, California. First presented in an assessment guide by O'Neill and Stansbury (1999), these guidelines were informed by hundreds of instructors who have used alternative assessment tasks in their classrooms.

How to Select or Develop Performance-Based Assessment Tasks

Given the complex and ambitious nature of performance-based assessment tasks, instructors who are interested in using them should carefully go about selecting and developing them. The steps they should follow are listed below.

1. Work collaboratively with other instructors of adult learners. Performance-based assessment tasks require students to demonstrate integrated, highly intellectual learning. Working collaboratively with other instructors, particularly at the onset, will help

ensure that the tasks you develop are clear, on target, and appropriate for your students. Have your colleagues review what you develop and do the same for them. Some performance-based assessments, such as projects or portfolios, may be implemented across several classrooms in a given program or institution. Different classes may be responsible for supporting different parts of a given student's project or portfolio. In this situation, collaboration and coordination among instructors is not only desirable, it is a requirement.

2. Adapt from existing assessment tasks. Performance-based assessment tasks are challenging to develop. Particularly in the case of projects and portfolios, don't "reinvent the wheel" when it is easier to start with models. Adopt existing models as is, if appropriate, or adapt them to your particular lesson/learning objectives and the needs of your students.

3. Use EFF Standards and related documents (e.g., curriculum frameworks) to guide task development and selection efforts. This will help ensure that all assessment tasks are linked to targeted standards/learning objectives and measure the targeted knowledge and skills.

4. As tasks are developed or reviewed, ensure that they meet the following criteria:

- focus on high-level thinking, reasoning, and problem-solving skills.
- use simple, concise language to clearly articulate the task to be completed by the students.
- provide specific instructions, including only information that is relevant and necessary to answer the question or complete the task.
- avoid unnecessary or excessive detail (when including information in instructions or statement of task, ask yourself, "Is this essential information?" If the answer is "no," eliminate it.)
- are within the appropriate range of difficulty for your students.
- use familiar vocabulary and concise sentences.
- use graphics (when applicable) that are clear and easy to understand.
- do **not** use language or content that could be offensive or inappropriate for subgroups of learners.
- do **not** include or implicitly support negative stereotypes.

How to Prepare Students for Performance-Based Assessments

Students who have not been exposed to performance-based assessment methods will need a lot of preparation in order to be successful. The specific strategies for helping students succeed on on-demand scenarios differ somewhat from those needed for helping students succeed on projects and portfolios. They are treated separately below.

Preparing Students for Scenarios

1. Plan classroom activities that will help students learn to interpret, think through, and answer oral and written-response tasks. For example, model processes for "thinking through" and outlining answers to written- or oral-response questions. Share with students examples of responses that are detailed, general, or vague.

2. Provide students with the opportunity to work

through questions as a group. After group discussion, have each student write out his or her own response to the question.

3. Provide students, through classroom and homework assignments, with multiple opportunities to practice writing or speaking about what they know.

4. Have students evaluate their own answers to scenario questions, as well as the answers of their peers, using a scoring guide or scoring criteria. Encourage students to discuss strategies for improving their own and others' work.

5. Allow students to revise and improve their answers to scenarios based on your feedback or the feedback of their peers.

6. Involve students in developing scenarios and scoring guides related to content covered in your curriculum.

7. Prior to administering a scenario task that "counts," show and explain to students the scoring guide or criteria that will be used to evaluate their work so that they better understand what is expected of them.

8. Review effective test-taking strategies with students prior to administering scenarios in your classroom. For example: encourage students to read each part of the question carefully before responding; encourage students to briefly outline their answers before writing their response; for written scenarios, remind students to check their work when finished to make sure they have responded to all parts of the question.

Preparing Students for Project and Portfolio Assessment

All the above strategies for scenarios should also help students prepare for designing projects and

portfolios since logical thinking and problem-solving is the common denominator for all these tasks. However, the large scope of projects and portfolios also call for other strategies to help students succeed at these tasks.

1. Familiarize students with the EFF Standards and the specific requirements of the assessment they will be completing. Introduce the Standards at the beginning of the course and continually reinforce Standards by referring to them frequently during instruction and as students make progress on their projects or portfolios.

2. Encourage student independence by providing them with choices and options (within the parameters of the overall task) for the focus of their projects or the entries to include in their portfolios.

3. Regularly ask students probing questions that require them to reflect on or evaluate their own work: How does this piece of work show mastery of a Standard? What do you see as the strengths or areas of improvement for this piece of work?

4. Have students work in pairs or small groups to review and comment on each other's work in progress.

5. Provide students with access to support and reference materials that can give them ideas about possible projects and entries for portfolios.

6. Nurture a culture of inquiry in the classroom, where mistakes are viewed as vehicles for learning.



The Role of Performance-Based Assessment in a Comprehensive Adult Learning Assessment System

BY NOW THE READER SHOULD BE AWARE that performance-based assessment is a valuable approach to the measurement of adult learning and that it warrants inclusion in a comprehensive adult learner assessment system. Its many advantages include providing: a stronger link between instruction and assessment, more meaningful connections between classroom activities and the outside world, and greater emphasis on deep content learning, problem-solving, self-reflection, and interpersonal skills.

Despite the great promise of performance-based assessments, there are challenges associated with implementation beyond the individual classroom. For example, performance-based assessments are expensive to develop and score when compared to multiple-choice testing. While multiple-choice tests can be machine-scored in a very cost-effective way, scoring of performance-based assessments involves human scorers who must be trained and calibrated. Moreover, performance-

based assessments sometimes demonstrate questionable technical adequacy (e.g., lower reliability compared to traditional multiple-choice questions) which limits their usefulness for large-scale testing and accountability purposes.

Nevertheless, the question for educators should not be whether to use performance-based assessment methods, but rather how to take advantage of their benefits as part of an ideal overall assessment system. The solution should be to phase use of performance-based assessment into a comprehensive adult learning assessment system, beginning with integration of performance-based methods into classroom instruction and assessment. As programs, instructors, and students become more familiar with performance-based assessments, and prerequisite development work is conducted to ensure their technical quality and feasibility, performance-based assessments can be systematically phased into high-stake, external assessment components. This phase-in approach will help ensure the

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long-term viability and sustainability of performance-based assessment in a comprehensive adult learning assessment system.

Clearly, this new vision of a comprehensive adult learning assessment system is not something that local educators can make happen on their own. Such systemic change requires that policymakers at the national and state levels assume responsibility for building a new infrastructure to promote and support comprehensive adult learner assessment. In turn, the responsibilities of local educators are to become familiar with the full range of assessment methods that support student learning and to become informed consumers of these tools.

In summary, instructors of adult learners should take to heart the connection demonstrated by research between the expectations of instructors and the behavior of students. If students are taught and assessed using methods that require them to think critically, analyze their work, and revise work samples until they meet rigorous content and performance standards, they will rise to that challenge. Classroom assessments that reinforce these expectations are a vital piece of the adult student learning experience. Performance-based assessments, challenging though they may be for students and instructors, are essential to realizing the promise of adult education reform.



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